ABSTRACT OF THE DISCLOSURE

A calibration light source outputs emission lines having a known emission-line wavelength, a spectral luminometer to be calibrated measures an emission-line output of the calibration light source, and a system control unit calibrates the wavelength of the spectral luminometer by estimating the wavelength of the emission-line output from ratios of outputs of a light receiving unit at a plurality of measurement wavelengths neighboring an emission-line wavelength and estimating a wavelength change amount from a difference between the estimated wavelength of the emission-line output and the known emission-line wavelength. The wavelength and the sensitivity of a spectral luminometer can be calibrated at a user side.